

## **SODA CAN SAFETY SCREEN**

### **Field of the Invention**

The present invention is directed to a device which prevents foreign objects and most particularly stinging insects such as bees and wasps and debris from entry into a beverage can.

### **Background of the Invention**

Insects that bite or sting are a cause of great health concern. In fact, the American Academy of Allergy, Asthma and Immunology notes that stinging insects send 500,000 people to hospitals each year. According to Orkin Pest Control, wasps, hornets, yellow jackets and fire ants are a particular problem; hot weather encourages the growth of their colonies. Just one acre can support up to forty mature fire ant colonies, each capable of containing 500,000 or more ants.

While insect bites or stings are usually not life threatening, they can be painful, easily infected and can aggravate skin disorders or allergies. Insects are particularly attracted to sugar such as that found in soda and beer cans. It is not unusual for stinging insects to crawl into a can and to lurk there ready to sting the unsuspecting beverage drinker.

A number of patents have issued directed to can and bottle covers. U.S. Patent No. 6,321,927 is directed towards a seal for use on a container such as a beverage or food storage container and more specifically such as a soft drink, beer, or soup can where the seal prevents contamination of the rim or lip, through and area adjacent to and surrounding the drinking aperture as well as

between the drinking aperture and the nearest rim. The seal covers the inner surface of the rim but does not restrict use of 6-pack rings or the like, nor does the seal interfere with stacking of the cans. The seal further includes a peel tab.

U.S. Patent No. 5,722,561 is directed towards a pressurized can for beverage having a small opening in its lid which is sealed with a patch on the inside of the lid and which is adapted to receive a drink straw removably attached to the outside of the can.

U.S. Patent No. 5,984,135 is directed to a beverage container cover for preventing the introduction of any contaminants into a beverage container. The beverage container cover includes a sealing layer including a top side and a bottom side, a straw extending on either side of the sealing layer and able to prevent a contaminant from passing therethrough and an adhesive substance extending about a periphery of the bottom side of the sealing layer for forming a seal with a rim of the container. A lip extends about a periphery of the top side for engaging the rim of the container and strengthening the seal therebetween. The cover further includes a first protective layer removably connected to the top side and covering a top portion of the straw and a second protective layer removably connected to the bottom side and covering the bottom side, a bottom portion of the straw and the adhesive substance. The straw may be extended whereby it extends to a base of the container.

U.S. Patent No. 5,779,086 is directed towards a twist-off can end assembly that has a cylindrical can body and a lid assembly. The lid assembly includes a joined lid and collar. When an open end of the can body is closed by

the lid assembly, a sealing lip on the collar engages a flange on the can body to form a hermetic seal. An annular chamber adjacent the sealing lip is formed by the collar and flange. When pressure of the contents within the can body increase to a predetermined amount, gas escapes from the can interior to the annular chamber. When pressure within this annular chamber increases, the lip deforms to increase the seal between the lid assembly and can body. Therefore, a self-sealing can arrangement is obtained. The lid assembly can be readily unscrewed from the can body.

U.S. Patent No. 4,705,186 is directed to a can end assembly formed from interconnected elements of a cover portion, a tear-shaped seal member and a pull member. This assembly encloses an end of a container, such as a beverage can. The cover portion has a dispensing opening and vent and a pivotable connection to one end of the seal member. The other end of the seal member is pivotably connected to the pull member. In a first position, the seal member will close the opening and will be beneath the pull member. Upon a slight lifting of the pull member, a seal between the seal member and opening will be broken. Continued movement of the pull member causes the seal member to rotate 180 degrees about its connection to the cover portion. During this movement, the pull member also rotates 180 degrees about its longitudinal axis and is displaced about 90 degrees relative to its initial orientation. This movement results in the seal member being positioned above the pull member and in these two elements being in an open, out of the way location to permit a consumer to empty the container. This movement may be reversed to temporarily reseal the container.

In the open position, the seal and pull members may be temporarily locked beneath a flange partially surrounding the cover portion. A score line is provided beneath the cover portion to accommodate compression forces. A groove extends around the periphery of the cover portion to permit the can end assembly to snap onto the can body.

U.S. Patent No. 5,285,924, to Morris, has an issue date of February 15, 1994. The patent is directed to a plastic slidable removable cover for a beverage container, such as a soda can, that can cover or expose the can opening using the same hand that grasps the container. The cover comprises a tab portion that fits under the rivet of a conventional soda can pull ring and covers the opening created, a periphery engaging portion that grips the lip of the can, and a plurality of serrations facilitating easy sliding of the cover around the lip periphery. The cover can be easily removed for use with other containers.

Each of the above inventions deal, in varying ways, with the problem associated with protecting or covering beverages. All are expensive or require complicated extra parts. None of the patents are specifically directed to the preventing stinging insects from entering a pull-tab can.

It would be desirable to provide a simple built-in mechanism associated with a beverage can which could prevent a stinging insect from crawling into a beverage can.

It would be desirable to provide a beverage can in which a concave or expandable screen would cover over the opening and which prevents insects and impurities from entering the can.